

SHORT COMMUNICATIONS

***Digitaria aequiglumis* (Poaceae), a new weed for
Western Australia**

Introduction

Digitaria Haller is a cosmopolitan genus represented in Western Australia by 15 indigenous and four introduced species. In early 1996, the first author collected a weedy *Digitaria* (*Lepschi* & Lally 2486) on the northern outskirts of Perth which did not match any *Digitaria* species so far recorded from Western Australia. Subsequent examination of the collection by the second author revealed the plant to be *D. aequiglumis* (Hackel & Arechav.) Parodi, a South American species sparingly naturalized in eastern and southern Australia (Webster 1984).

Digitaria aequiglumis is superficially similar to the two most common introduced *Digitaria* species in Western Australia, *D. ciliaris* (Retz.) Koeler and *D. sanguinalis* (L.) Scop., and could easily be confused with either taxon. The purpose of this note is to draw attention to the presence of *D. aequiglumis* in this state to allow the recognition of any further occurrences of this species.

Digitaria aequiglumis (Hackel & Arechav.) Parodi, Rev. Fac. Agron. Vet. 4:47 (1922). *Panicum aequiglume* Hackel et Arechav., Anal. Mus. Nac. Montevideo 1: 113 (1894).

Detailed descriptions of *D. aequiglumis* may be found in Vickery (1961), Webster (1984, 1987), Jessop (1986) and Jacobs & Wall (1993). The species is illustrated in the latter two references, as well as in Henrard (1950).

Specimen examined. WESTERN AUSTRALIA: 6.2 km N of Swan River crossing on Great Northern Highway, c. 7.5 km S of Bullsbrook, 27 Jan. 1996, B.J. Lepschi & T.R. Lally 2486 (BRI, CANB, PERTH).

Distribution. Native to southern South America, introduced into Europe and Australia, where it is naturalized in urban Adelaide and Sydney (Webster 1984). Within Western Australia known from one site on the northern outskirts of Perth.

Habitat. *Lepschi* & Lally 2486 was collected growing in brown sandy-loam on a roadside, in association with *D. ciliaris*, *D. sanguinalis* (*Lepschi* & Lally 2487), *Euphorbia* sp., *Sonchus oleraceus* and other weedy grasses and herbs. Plants of *D. aequiglumis* appeared to be confined to drier sites on the road verge, whereas *D. ciliaris* and *D. sanguinalis* occupied not only these areas but also moist soil in a shallow drainage ditch running parallel to the road.

Notes. As mentioned above, *D. aequiglumis* is superficially similar to the weedy *D. ciliaris* and *D. sanguinalis*. *Digitaria aequiglumis* may be distinguished from these species by the following key, which may be inserted into the key in Bennett (1987):

p. 955 rewrite lead 3 as follows:

3. Lower glume absent, upper glume subequal to lemma. Primary inflorescence branches unwinged **D. aequiglumis*
3. Lower glume present (though may be as little as 0.1 mm long in *D. sanguinalis*), upper glume shorter than lemma. Primary inflorescence branches winged
4. Upper glume 1/3 to 1/2 as long as lemma. Lower lemma scabridulous **D. sanguinalis*
4. Upper glume 1/2 to 3/4 as long as lemma. Lower lemma puberulous or sericeous and densely long-ciliate **D. ciliaris*

The indigenous *D. bicornis* (Lam.) Roem. & Schult., also resembles *D. aequiglumis*, but this taxon is confined to tropical areas in Australia (Webster 1984) and is unlikely to be found in association with *D. aequiglumis*. *D. bicornis* may be distinguished from *D. aequiglumis* by characters of the inflorescence and spikelets (see Webster 1984).

A feature of plants in the population represented by *Lepschi & Lally* 2486 is their distinctive pale green colour (both in life and when dried), and the first author was easily able to distinguish individuals of *D. aequiglumis* from *D. ciliaris* and *D. sanguinalis* (both darker purplish-green), on this character alone at the above locality. This is not specifically noted by any other authors (see above), although Vickery (1961) describes the spikelets in this species as "light green". Further observations on live and dried material are required to determine whether plant colour can be used as an aid to the identification of this taxon.

How *D. aequiglumis* arrived in Western Australia is unknown, but given the locality of *Lepschi & Lally* 2486, introduction via road traffic from eastern Australia seems likely. *Digitaria aequiglumis* does not appear to be a particularly aggressive or successful weed in areas where it is naturalized in eastern Australia, but its weed potential in Western Australia is unknown. Other species of *Digitaria* (e.g. *D. ciliaris* and *D. sanguinalis*) are important weeds in Australia and elsewhere (Kleinschmidt and Johnson 1977, Muenscher 1980, Wilson *et al.* 1995).

References

- Bennett, E.M. (1987). *Digitaria*. In: Marchant, N.G. and Wheeler, J.R. (eds.). "Flora of the Perth Region." Part 2. pp. 954-956. (Western Australian Department of Agriculture: Perth.)
- Henrard, J.T. (1950). "Monograph of the genus *Digitaria*." (Univ. of Leiden: Leiden.)
- Jacobs, S.W.L. & Wall, C.A. (1993). *Digitaria*. In: Harden, G.J. (ed.). "Flora of New South Wales." Vol. 4. pp. 455-462. (Univ. of New South Wales Press: Sydney.)
- Jessop, J.P. (1986). *Digitaria*. In: Jessop, J.P. & Toelken, H.R. (eds.). "Flora of South Australia." Part IV. pp. 1962-1965. (South Australian Govt Printing Division: Adelaide.)
- Kleinschmidt, H.E. & Johnson, R.W. (1977). "Weeds of Queensland." (Queensland Dept Primary Industries: Brisbane.)
- Muenscher, W.C. (1980). "Weeds." (Cornell Univ. Press: Ithaca.)
- Vickery, J.W. (1961). Gramineae. *Contr. National Herb. New South Wales, Flora Series*, No.19, part 1: 83-104.
- Webster, R.D. (1984). A revision of the genus *Digitaria* Haller (Paniceae: Poaceae) in Australia. *Brunonia*, 6: 131-216.
- Webster, R.D. (1987). "The Australian Paniceae (Poaceae)." (J. Cramer: Berlin.)
- Wilson, B.J., Horton, D. & Duff, A. (1995). "Crop Weeds of Northern Australia." (Queensland Dept Primary Industries: Brisbane.)

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